

UNIT 9 REVIEW PACKET**Important Things!**

Axis of Symmetry:

Vertex:

Solutions on a graph:

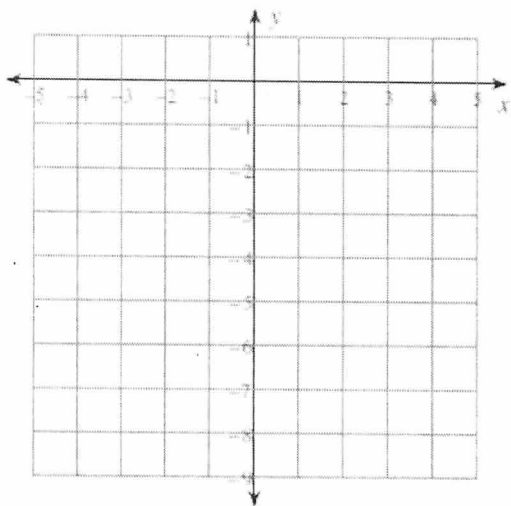
Zero Product Property:

Quadratic Formula:

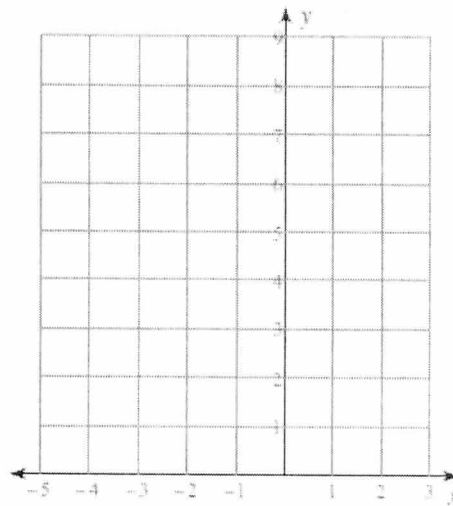
Discriminant:

#1-2: Graph using a Table!

1) $y = -2x^2$



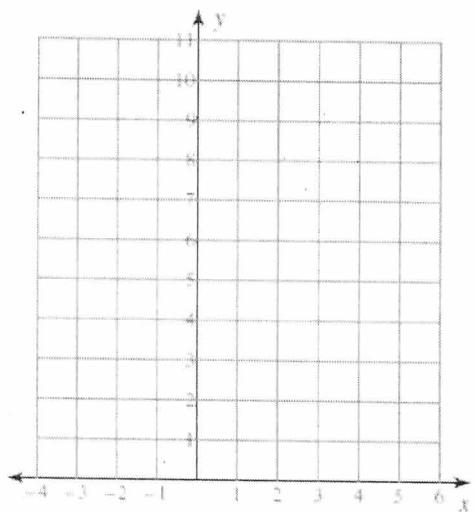
2) $y = x^2 - 2x + 5$



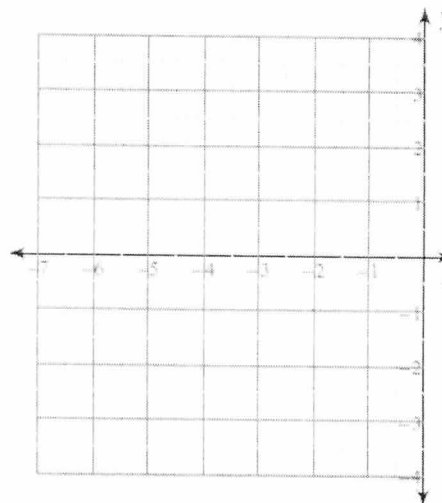
#3-6:

- Find the Axis of Symmetry
- Find the Vertex
- Graph using the AoS and Vertex
- Is the Vertex a Max or a Min?

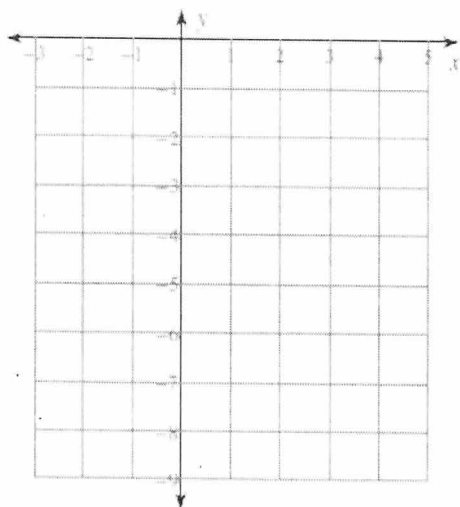
3) $y = 2x^2 - 8x + 10$



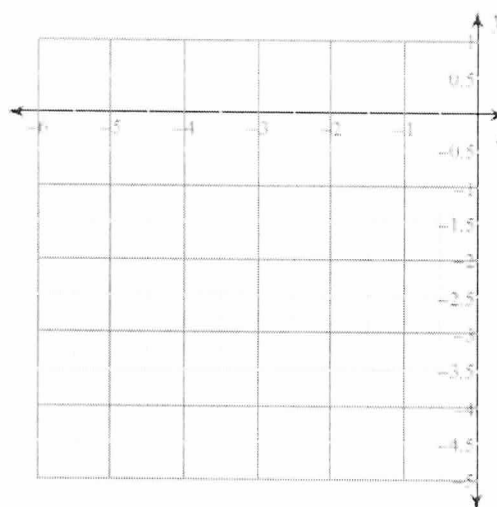
4) $y = -x^2 - 8x - 14$



5) $y = -x^2 + 6x - 13$

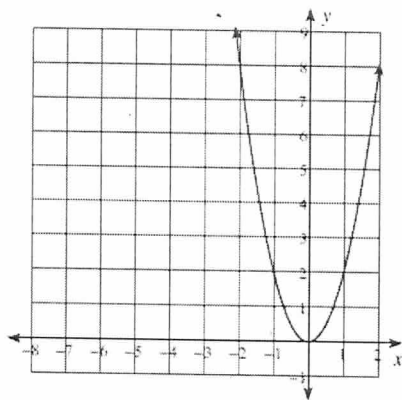


6) $y = x^2 + 6x + 5$

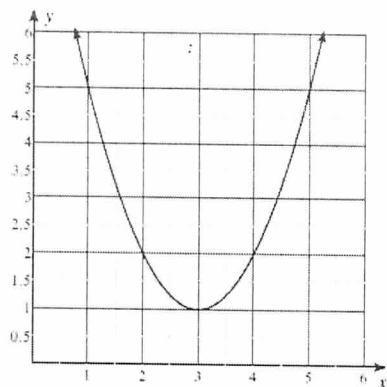


#7-10: What are the solutions?

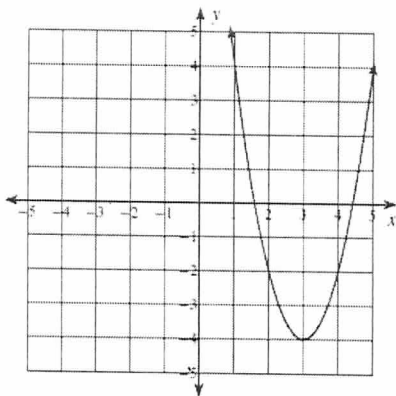
7) $y = 2x^2$



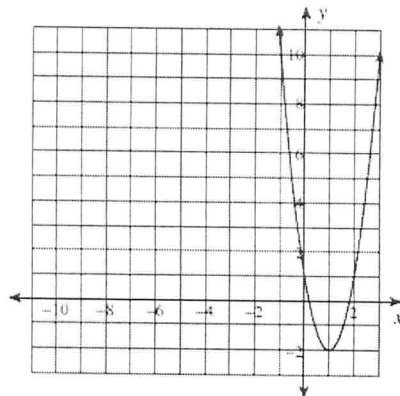
8) $y = x^2 - 6x + 10$



9) $y = 2x^2 - 12x + 14$



10) $y = 3x^2 - 6x + 1$



#11-26: Solve by factoring or using square roots!

11) $(7n + 1)(n - 6) = 0$

12) $(a - 5)(a - 4) = 0$

13) $(v + 6)(2v - 5) = 0$

14) $(x - 2)^2 = 0$

15) $k^2 - 14k + 48 = 0$

16) $x^2 + 9x + 14 = 0$

$$17) x^2 + 3x + 2 = 0$$

$$18) n^2 - 2n - 48 = 0$$

$$19) m^2 = 8m - 12$$

$$20) p^2 + 48 = -14p$$

$$21) n^2 + 2 = 3n$$

$$22) x^2 + 6 = 7x$$

$$23) 7b^2 + 8 = 120$$

$$24) 7n^2 - 2 = 26$$

$$25) 7x^2 + 8 = 351$$

$$26) 7r^2 - 10 = -65$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

#27-32: Solve by using the quadratic formula!

27) $-8v^2 + 4v + 20 = 0$

28) $-5n^2 + 2n - 10 = 0$

29) $10k^2 - 6k - 2 = 0$

30) $2p^2 - 6p - 140 = 0$

31) $3x^2 - 6x - 45 = 0$

32) $2a^2 + 5a - 9 = 0$

#33-36:

- a) Find the Discriminant
- b) How many solutions will there be?
- c) Find the solutions

33) $5x^2 + 11x - 70 = 0$

34) $2p^2 - 5 = 0$

$$35) n^2 + 3n - 88 = 0$$

$$36) 10n^2 + 2n + 6 = 0$$

Real-World Problems:

- What is the highest point?
At what time does it occur?
- When does the object land?
- What are the solutions?

SHOT PUT HEIGHT ABOVE RELEASE POINT

